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Committee
on the Status
of Endangered
Wildlife
in Canada

Comité sur le
statut des espèces
menacées
de disparition
au Canada

Ottawa, Ont. K1A 0H3
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STATUS REPORT ON THE GRAY FLYCATCHER

EMPIDONAX WRIGHTII

IN CANADA

BY

RICHARD J. CANNINGS

STATUS ASSIGNED IN 1992

NO DESIGNATION REQUIRED

REASON: RECENT INVADER WITH AN EXPANDING POPULATION.

OCCURRENCE: BRITISH COLUMBIA

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Committee on the Status of Endangered Wildlife in Canada

Comité sur le statut des espèces menacées de disparition au Canada

JUNE 1990

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EXTINCT SPECIES: Any species of fauna or flora formerly indigenous to Canada but no longer known to exist anywhere.

STATUS REPORT ON THE GRAY FLYCATCHER

EMPIDONAX WRIGHTII

IN CANADA

BY

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Frontispiece. A newly-fledged juvenile Gray Flycatcher perched next to the first nest of this species found in Canada (Steve Cannings photo).

A. ABSTRACT

Gray Flycatchers breed in Canada only in the south Okanagan Valley in British Columbia. The species is a recent arrival there, the first documented breeding taking place in 1986. A survey in 1990 found 47 territorial males in three sites near Summerland (41 males), Vaseux Lake (2), and Oliver (4). Territories are located in pure stands of small to medium-sized ponderosa pines with a very open understory. There are no forseeable major threats to this habitat in the near future, but population monitoring and searches for new breeding sites should continue. Because of its small population, the Gray Flycatcher should be considered Vulnerable in Canada.

B. DISTRIBUTION

B. 1. World (Figure 1)

The Gray Flycatcher breeds from extreme southern British Columbia and south-central Idaho south to south-central California, southern Nevada, central Arizona, south-central New Mexico and locally in western Texas. It winters from southern California and central Arizona south to the Mexican states of Jalisco, northern Michoacan, Mexico, and Puebla (American Ornithologists' Union 1983, Greg Lasley pers. comm.).

B. 2. Canada (Figures 2 and 3)

In Canada, the Gray Flycatcher is restricted to the southern Okanagan Valley in south-central British Columbia, where nests have been found near Oliver and Summerland (Cannings 1987, Preston 1990) and singing males heard near Vaseux Lake (Preston 1990). A vagrant was mist-netted and photographed at Toronto, Ontario on 11 September 1981 (Goodwin 1982), and another possible vagrant was described from Saskatoon, Saskatchewan on 27 August 1985 by Gilliland (1986).

Figure 1. Range of the Gray Flycatcher.

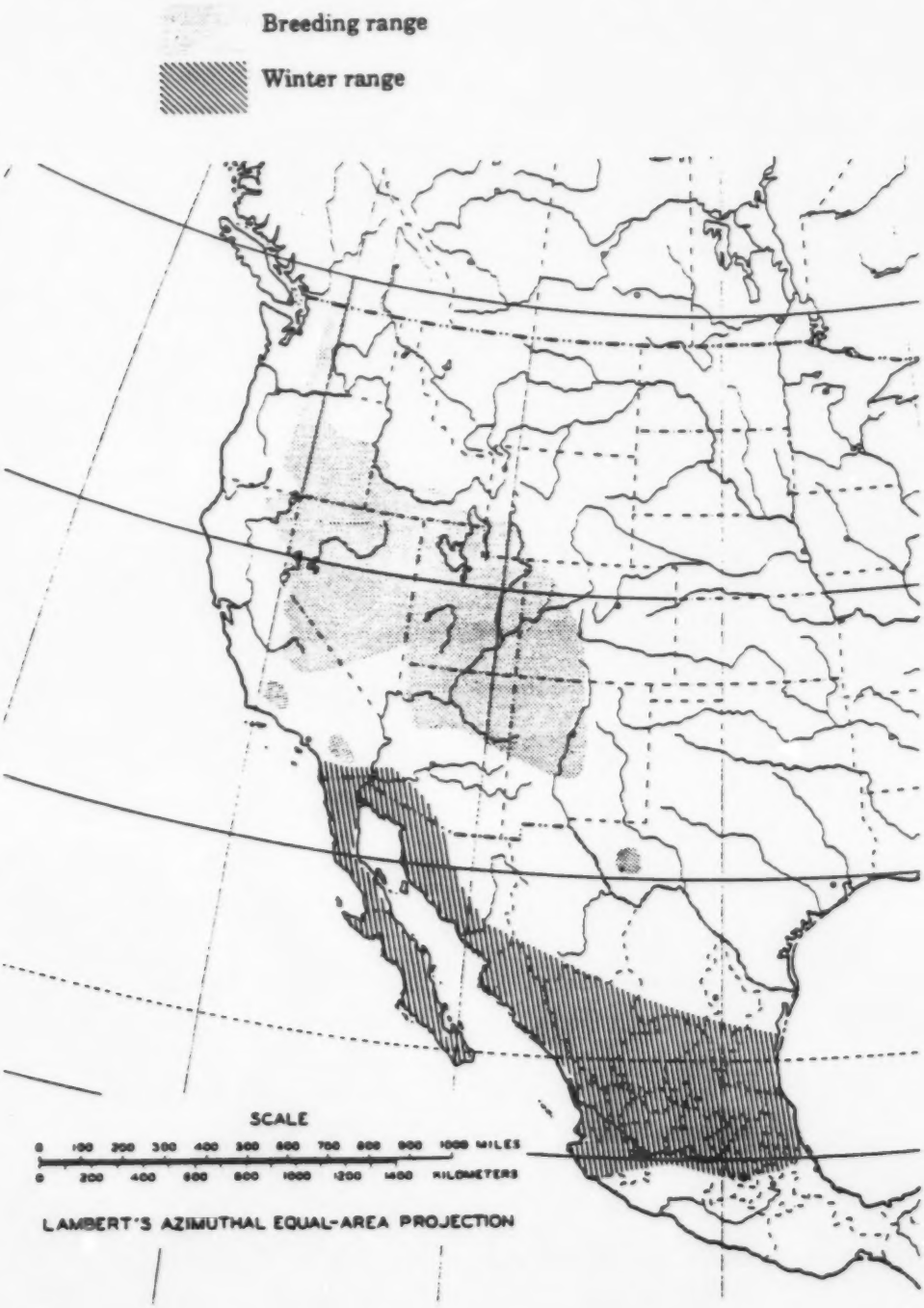

Breeding range
Winter range
SCALE
0 100 200 300 400 500 600 700 800 900 1000 MILES
0 200 400 600 800 1000 1200 1400 KILOMETERS
LAMBERT'S AZIMUTHAL EQUAL-AREA PROJECTION

Figure 2. Gray Flycatcher sites in British Columbia: the Oliver area. A, McKinney Road, 10 km E of Oliver; B, Vaseux Lake site. Circled numbers represent number of singing birds counted by Preston (1990).

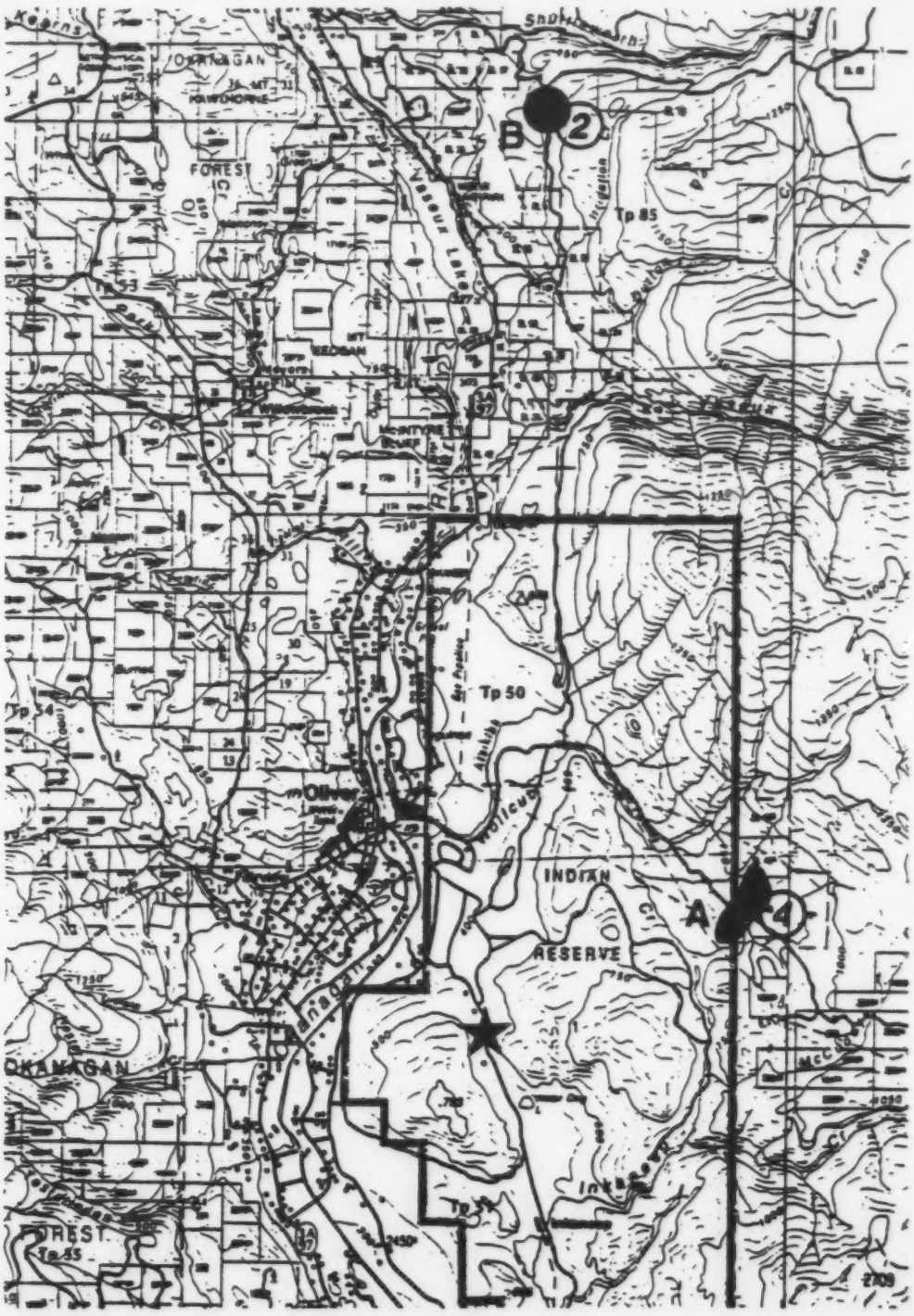
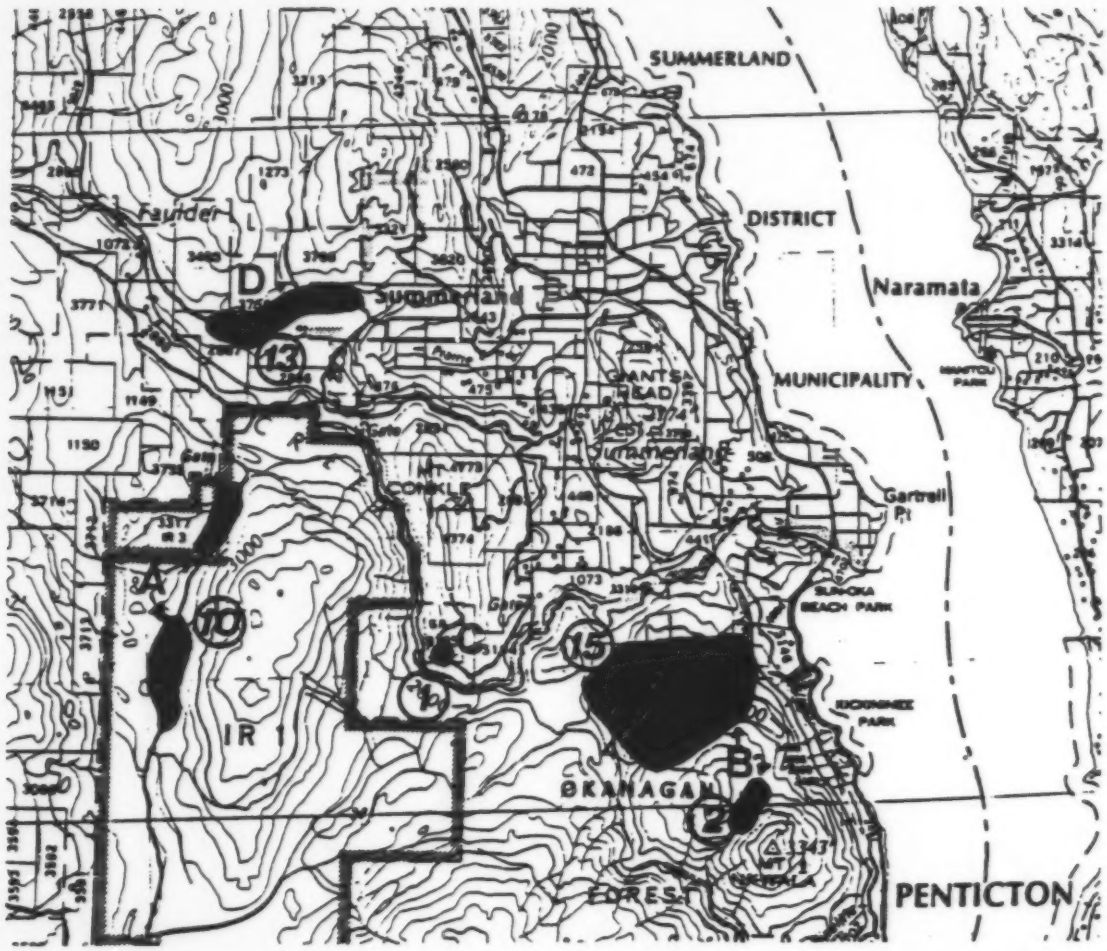


Figure 3. Gray Flycatcher sites in British Columbia: the Summerland area. A, Shingle Creek Ranch Road; B, sites north of Mt. Nkwala; C, Ecological Reserve #7 (Upper Trout Creek); D, Meadow Valley Road. Circled numbers represent number of singing birds counted by Preston (1990).



C. PROTECTION

As are most other North American birds, the Gray Flycatcher and its nests and eggs are protected in Canada and the United States from hunting and collecting under the Federal Migratory Birds Convention of 1916. It is also protected in British Columbia under the Wildlife Act of 1982.

D. POPULATION SIZE AND TREND

Gray Flycatchers have recently extended their breeding range northward in British Columbia (Cannings 1987, Figure 4), southwestward in California (Johnson and Cicero 1985, Paul Lehman, pers. comm.) and eastward into Texas (G. Lasley, pers. comm.).

Gray Flycatchers were first reported in British Columbia on 19 June 1984, when Hue and Jo Ann MacKenzie saw one 10 km east of Oliver (Cannings 1987). This site was not revisited until 18 May 1986, when a single male was seen and heard singing. Cannings (1987) continues:

> "On the same day, a second bird was heard about 7 kilometres to the southwest [along Inkameep Road] by Wayne Weber, Sydney Cannings, and Hue and Jo Ann MacKenzie...[this] second bird was never seen again...the number of singing birds at the Camp McKinney Road site increased steadily, with two on May 20, four on May 29, and thirteen on June 1...Several areas of suitable habitat within 30 km of Oliver were searched without success until June 14 when I discovered a second group of at least four Gray Flycatchers singing between Trout and Shingle creeks 5 to 8 kilometres southwest of Summerland..."

Preston (1990) spent about 15 days searching for Gray Flycatchers in the southern Okanagan Valley in 1990 and located 51 birds: 5 at the Oliver site, 2 near Okanagan Falls, and 44 west and south of Summerland (Figures 2 and 3). Those sightings represent at least 47 territorial males. None were found between Summerland and Peachland, and the area north of Peachland was not searched.

The apparent rapid growth of the Okanagan population is part of a well-documented expansion of the Gray Flycatcher range from central Oregon north through central Washington and into British Columbia (Larrison 1971, Yaich and Larrison 1973, Lavers 1975, Cannings 1987).

E. HABITAT

E. 1. Habitat preferences

The American Ornithologists' Union (1983) summarizes the habitat preferences of the Gray Flycatcher as follows:

> Arid woodland and brushy areas, breeding in sagebrush, pinyon-juniper woodland and, less frequently, open pine-oak association, in migration and winter also in arid scrub, riparian woodland, and mesquite.

Recently, populations have expanded into Washington and British Columbia using open, pure ponderosa pine stands (Cannings 1987). Larrison (1981) states that, in the Pacific Northwest, they prefer

> semi open sagebrush and/or juniper areas where there are bare patches of ground, sagebrush gullies, open yellow [ponderosa] pine groves where perching and nesting are done in low trees. In its northward advance along the east slopes of the Cascades...found mostly in the lower yellow pine belt.

Johnson (1963) found Gray Flycatchers in pure stands of Jeffery pine (*Pinus jefferyi*), a species very similar to ponderosa pine, at the western edge of the Gray Flycatcher's range in northern California. At these sites the juniper-sagebrush habitats of the Great Basin meet the thick pine forests of the Sierra Nevada, and in a narrow ecotone Johnson found Gray Flycatchers in the open pine woodlands and Dusky Flycatchers (*Empidonax oberholseri*) in the denser forests. The situation is very similar in British Columbia (see below). Gray Flycatcher territories in those woodlands were characterized by pure pine stands dominated by relatively small trees (53% of trees less than 6 inches dbh, tree density 450/ha); each territory was centred on one or more grassy openings in the forest. Adjacent Dusky Flycatcher territories were characterized by denser forest with a thick understory of shrubs and small trees (Johnson 1963).

The habitat used by Gray Flycatchers in British Columbia consists of open ponderosa pine woodland with a grassy understory and often scattered shrubs. This general type of habitat is common in the Okanagan Valley, and for that matter in many other parts of southern British Columbia, but Gray Flycatchers seem to be found only in pine woodlands of a certain structure.

Gray Flycatcher territories in British Columbia contain pines tending to small or moderate size (10-15 m high) with openings 10-15 m in diameter scattered throughout the groves. The understory characteristics of these groves are more diverse. At Oliver, the understory is quite shrubby, mainly consisting of antelope-brush (*Purshia tridentata*) and threetip sagebrush (*Artemisia tripartita*) (see photograph in Cannings 1987:377).

The pine woodland along the Shingle Creek Ranch road (Figure 3,A) is characterized by an understory of scattered buckbrush (*Ceanothus velutinus*). Other sites at Summerland have little or no shrubs, the ground cover being dominated by bluebunch wheatgrass (*Agropyron spicatum*). Preston (1990) notes that many of the Summerland territories are in areas of young pine which have been thinned for silvicultural purposes. In those cases, the thinning creates the forest openings essential to the feeding habits of Gray Flycatchers, and the brush piles of small trees left on the site may further enhance the habitat by providing preferred low perches.

In summary, Gray Flycatchers in British Columbia are found in habitats with the following characteristics:

1. essentially pure stands of ponderosa pine
2. small to medium trees (up to 15 m high, 25 cm dbh
3. numerous clearings 10 to 15 m across
4. scattered shrubs or small pines for perching

Suitable habitat probably exists west to Princeton and Merritt, north to the Kamloops area and to the east in the Rocky Mountain Trench near Cranbrook, but as yet there have been no British Columbia reports of Gray Flycatchers outside the southern Okanagan Valley.

Much of the habitat presently used by Gray Flycatchers is located within Indian Reserves, including sites A and B in Figure 3 and the western third of the McKinney Road site in Figure 2. The remainder of the McKinney Road site is on private land, as is the Meadow Valley Road, Summerland site (Figure 3,D). The site near Vaseux Lake (Figure 2,B) is in Tree Farm Licence 15, and site C in Figure 3 is in Ecological Reserve #7 (Trout Creek).

F. GENERAL BIOLOGY

F. 1. Reproductive Capability

Gray Flycatchers lay three to four eggs per clutch, and attempt one or two broods each summer, each taking about 50 days to complete from nest-building to independence of the fledglings (Ehrlich et al. 1988, Russell and Woodbury 1941). Nests at Oliver have contained four eggs and a cowbird egg (18 July 1986), four eggs (12 June 1987) and three young (5 August 1987) (British Columbia Nest Record Scheme--BCNRS). It is unclear whether Gray Flycatchers attempt two broods in British Columbia or if the wide spread in egg dates is the result of nest predation and subsequent relaying, as was the case at Oliver in 1987 (Cannings et al. 1987).

F. 2. Species Movement

Gray Flycatchers are highly migratory, returning from their Mexican wintering grounds to British Columbia in early May. They probably move south in late August or early September, but local data are nonexistent. Gray Flycatchers, like most members of their genus, are relatively difficult to identify after the males stop singing in July.

F. 3. Behaviour/Adaptability

As a species, the Gray Flycatcher seems quite adaptable to different habitats of similar structure--sagebrush, pinyon-juniper, and open pine forests are all successfully used. However, that adaptability is restricted in locally as, in a given area, Gray Flycatchers seem tightly bound to a certain habitat type. For instance, in Washington and British Columbia they are not found in the sagebrush habitats in which they are so common in Oregon (Gabrielson and Jewett 1940).

In their ponderosa pine forest habitat they are also restricted to a rather narrow seral stage where trees are sufficiently small to provide low-level feeding perches, but openings are large enough to provide feeding areas.

G. LIMITING FACTORS

The primary limiting factor to the expanding population of Gray Flycatchers seems to be habitat availability. Mapping studies underway in the south Okanagan (Hlady 1990) may identify additional suitable habitat.

Nest parasitism by Brown-headed Cowbirds may pose a significant threat to the breeding success of Gray Flycatchers in British Columbia; the first nest found in Canada contained a Brown-headed Cowbird (*Molothrus ater*) egg (Cannings 1987), and the Dusky Flycatcher, a very close relative found in similar habitats, is quite heavily parasitized in the Okanagan (Cannings et al. 1987).

H. SPECIAL SIGNIFICANCE OF THE SPECIES

In Washington, the Gray Flycatcher is considered a Species of Concern, with a pending recommendation for State Monitor (Washington Department of Wildlife 1988). It is on the British Columbia Ministry of Environment's Blue List (1989) and is a Priority 1 species in the South Okanagan Critical Areas Program (Hlady 1990).

The Gray Flycatcher shares its open ponderosa pine environment with several other species of concern, including Common Poorwill (*Phalaenoptilus nuttallii*), Lewis' Woodpecker (*Melanerpes lewis*), Western Bluebird (*Sialia mexicana*), White-headed Woodpecker (*Picoides albolarvatus*), spotted bat (*Euderma maculata*), Nuttall's cottontail (*Sylvilagus nuttallii*), American badger (*Taxidea taxus*), western rattlesnake (*Crotalus viridis*), and Great Basin spadefoot toad (*Scaphiopus intermontanus*) (Ministry of Environment 1989, Hlady 1990).

I. EVALUATION

Although the range of the Gray Flycatcher is apparently expanding, the Canadian population is still quite small (about 50 pairs) and is essentially confined to two areas of ponderosa

pine forest with distinctive characteristics. Until more study confirms further range expansion and population increase, the Gray Flycatcher should be considered Vulnerable in Canada.

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